

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning on page 4, line 31 with the following replacement paragraph:

--Figure 1 shows a first magnetic layer 12 with a resulting magnetization m_1 , having the direction indicated in Figure 1, on which an intermediate layer 11 is situated. A second magnetic layer 13 with a resulting magnetization m_2 having the direction indicated in Figure 1 is arranged on intermediate layer 11. Positioned on second magnetic layer 13 is a magneto-resistive layer stack 14 as it is known per se from the related art. In particular, magneto-resistive layer stack 14 works on the basis of the GMR effect according to the coupled multilayer principle or according to the spin valve principle. First magnetic layer 12, intermediate layer 11 and second magnetic layer 13 jointly form a layer arrangement 15, which generates a resulting magnetic field that acts on the magneto-resistive layer stack. Furthermore, it is provided that first magnetic layer 12 and second magnetic layer 13 be ferromagnetically exchange-coupled via intermediate layer 11. Magneto-resistive layer stack 14 may have a third magnetic layer 16 and a fourth magnetic layer 17, which are separated from one another by a second non-magnetic intermediate layer 18. Non-magnetic intermediate layer 11 of layer arrangement 15 and second non-magnetic intermediate layer 18 of magneto-resistive layer stack 14 are at least substantially made of the same material and/or have a substantially equal thickness.--.